

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

see form PCT/ISA/220

KUHNEN & WACKER

Patent- und Rechtsanwaltsbüro

Eing. 17. Sep. 2004

Frist

17.02.2005

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/003918

International filing date (day/month/year)
14.04.2004

Priority date (day/month/year)
17.04.2003

International Patent Classification (IPC) or both national classification and IPC
B32B31/00, B29C53/60, F16L59/02

Applicant
SAINT-GOBAIN ISOVER

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITYInternational application No.
PCT/EP2004/003918

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/003918

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3 4 11 12 15, 17, 18
	No: Claims	1 2 5-10 13 14 16
Inventive step (IS)	Yes: Claims	3 4 11 12 18
	No: Claims	1 2 5-10 13-17
Industrial applicability (IA)	Yes: Claims	1-18
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

- 1 The following documents are referred to in this communication:

D1 : GB 1 214 330 A (BALDWIN-EHRET-HILL INC.) 2 December 1970

D2 US 3346016 8JOHNS MANVILLE) 10 October 1967

D3 : DE 32 05 185 A (SEITZ WILFRIED) 25 August 1983 (1983-08-25)

D4 : US 3 824 140 A (HOFMANN A) 16 July 1974 (1974-07-16)

- 2 Document D1 discloses (the references in parenthesis applying to this document):

An apparatus for the production of resin-impregnated glass fibre/mineral wool, pipe insulation sections, which is characterised in that glass fibre and mineral wool blocks are each impregnated with a hardenable resin at first and second feed stations and sectioned by means of a moveable endless bandsaw, into mats of pre-determined thickness which are then together tightly wound in on a mandrel, so as to produce a laminate of alternating layers of glass fibre and mineral wool. The so formed sleeve is then cured to form an integral pipe covering. The process is described in detail (page 3 line 32 - page 4 line 26 and figs. 2, 5 and 23-27).

2.1 INDEPENDENT CLAIMS 1, 8 and 13

As can be seen from the above, document **D1** discloses in combination all the features defined in independent claims 1, 8 and 13 . Hence the subject-matter of these claim is not new (Article 33(2) PCT).

- 3 Document D2 discloses (the references in parenthesis applying to this document):

Pipe insulation sleeves were formed by rolling on a mandrel and thereby convoluting around itself a felt of glass fibre containing about 10% by weight of the fibre of an uncured phenol formaldehyde binder, and upon completion of the first revolution inserting and interleaving a sheet of aluminum foil of like or coextensive dimensions between the convolutions of fibre continuing the wrapping of the foil within the fibre until five complete continuous spirals of foil are formed whereupon the inclusion of the foil was terminated and the convoluting of glass fibre was continued. On completion of the pipe sections the resinous binder was cured (col. 5 line 57 - col. 6 line 7).

3.1 INDEPENDENT CLAIMS 1 and 8

As can be seen from the above, document D2 discloses in combination all the

features defined in independent claims 1 and 8 . Hence the subject-matter of these claim is not new (Article 33(2) PCT).

4 Document D3 discloses (the references in parenthesis applying to this document):

The invention relates to a process for producing a sound-absorbing filling for an internal-combustion engine silencer. The silencer filling is produced as a one-piece moulding together with the metal wool sock (3) arranged in it, by the metal wool sock (3) (considered as the reinforcing layer) being drawn onto a core (7), corresponding to the exhaust pipe, the core (7) being wrapped in layers of nonwoven mineral-wool fabric (9), at least partially impregnated with a synthetic resin binder, the entire article surrounded by a circumferential mould (15) and thermally cured, and the finished moulding then demoulded (claim 1, figs. 1 and 2). The sleeve can further comprise a layer of binder free glass fibre mat (claims 6 and 7).

4.1 INDEPENDENT CLAIMS 1, 8 and 13

As can be seen from the above, document D3 discloses in combination all the features defined in independent claims 1, 8 and 13 . Hence the subject-matter of these claim is not new (Article 33(2) PCT).

5 DEPENDENT CLAIMS 2, 5-7, 9, 10, 13, 14, 16 and 17

5.1 Dependent claims 2, 5-7, 9, 10, 13, 14 and 16 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT).

5.2 The combination of the features of dependent claims 15 and 16 are not considered to involve an inventive step because introducing heat absorbing or radiation shielding material into an heat insulating pipe sleeve is considered to be a normal design option for the man skilled in the art (cf. e.g. D4).

5.3 The technical features of claim 17 are a mere embodiment within the ambit of a main claim. The features thereof have not been shown to substantiate to a solution of a technical problem in a non-obvious manner for the man skilled in the art.

6 DEPENDENT CLAIMS 3, 4, 11, 12 and 18

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/EP2004/003918

- 6.1 The combination of the features of dependent claims 3, 4, 11, 12 and 18 are neither known from, nor rendered obvious by, the available prior art, because they seem to constitute a non-obvious alternative embodiment for providing a reinforced insulating sleeves for pipes.